

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 26 (LIBERTY ROAD) AT MD 850 (NORTH MARKET STREET) IN FREDERICK COUNTY. A HALF SIGNAL WILL BE INSTALLED ON THE SOUTH SIDE OF MD 26 SUCH THAT WESTBOUND TRAFFIC WILL NOT STOP. VIDEO DETECTION IS PROPOSED FOR ALL PRESENCE DETECTION AND NON-INVASIVE MICROLOOP PROBES ARE ALSO PROPOSED FOR SETBACK DETECTION ALONG MD 26. ALL PROPOSED TRAFFIC SIGNAL HEADS WILL BE LED. MD 26 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA TWO-PHASE, FULL-TRAFFIC ACTUATED MODE. THE WESTBOUND MD 26 LEFT TURN WILL FLASH RED UNTIL VEHICLES ACTUATE THE LEFT TURN SIGNALS. AT THAT TIME, THE SIGNALS WILL SHOW GREEN AND THE EASTBOUND MD 26 SIGNAL HEADS WILL TURN RED.

CONTROLLER REQUIREMENTS

INSTALL A NEMA SIZE 6 BASE MOUNTED TRAFFIC SIGNAL CONTROLLER WITH ALL OF THE NECESSARY EQUIPMENT, HARNESSSES, AND VIDEO DETECTION CAMERA INTERFACE.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE INSTALLATION OF THE PHONE DROP. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #7/00TS ARE AS FOLLOWS:

District #7

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: 301-624-8141

Ms. Andrea Abend
District Utility Engineer
Phone: 301-624-8115

Mr. Raymond Johnson
Assistant District Engineer - Maintenance
Phone: 301-624-8106

Mr. John Huchrowski
Assistant District Engineer - Construction
Phone: 301-624-8201

Office of Traffic & Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

Mr. Eugene Bailey
Chief, SHA Sign Operation
410-787-7670

The Power Company Representative is:
Allegheny Power
800 Cabin Hill Drive
Greensburg, PA 15601
Phone: 1-800-255-3443

EQUIPMENT LIST 'A'

EQUIPMENT TO BE SUPPLIED BY THE SHA

CAT CODE QUANTITY DESCRIPTION

NONE

EQUIPMENT LIST 'B'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE QUANTITY DESCRIPTION

800000	1 EA	EIGHT-PHASE FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET WITH ALL NECESSARY HARNESSSES
800000	1 EA	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER
800000	1 EA	VIDEO DETECTION CAMERA INTERFACE (1-4 CAMERAS)
800000	74 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS - MAST ARM/GROUND MOUNT
	2 EA	W3-3 (48"x48")
	2 EA	D95-25 (24"x24")
	1 EA	R3-2L (30"x30")
	1 EA	R10-12(2) MOD (60"x36")
	1 EA	R10-12(2) (48"x36")
807202	1 EA	METERED SERVICE PEDESTAL
810605	2 EA	NON-INVASIVE MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
816001	1 EA	VIDEO DETECTION CAMERA (ECONOLITE TERRA TYPE)
816005	1 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818006	1 EA	20 FOOT BREAKAWAY PEDESTAL POLE
818036	1 EA	STEEL POLE WITH 50 FOOT MAST ARM
818041	1 EA	STEEL POLE WITH 60 FOOT MAST ARM
831010	2 EA	250 WATT HPS LAMP AND LUMINAIRE
860284	15 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
866104	2 EA	20 FOOT LIGHTING ARM ON TRAFFIC SIGNAL STRUCTURE

EQUIPMENT LIST 'C'

EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE QUANTITY DESCRIPTION

120500	1 LS	MAINTENANCE OF TRAFFIC
203030	3 CY	TEST PIT EXCAVATION
585624	40 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	9 CY	CONCRETE FOR SIGNAL FOUNDATION
801106	36 LF	WOOD SIGN SUPPORTS, 4 INCH X 6 INCH
802501	165 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805105	50 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805115	45 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805118	185 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805125	60 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805135	490 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805140	370 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
811011	6 EA	ELECTRICAL HANDHOLE
822500	1 EA	AS BUILT FOR SHA ON CADD
832017	400 LF	CABLE - 1 CONDUCTOR, NO. 4 AWG, TYPE USE, 600V
837001	5 EA	GROUND ROD - 3/4 INCH DIAMETER BY 10 FOOT LENGTH
861107	50 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	450 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	260 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC

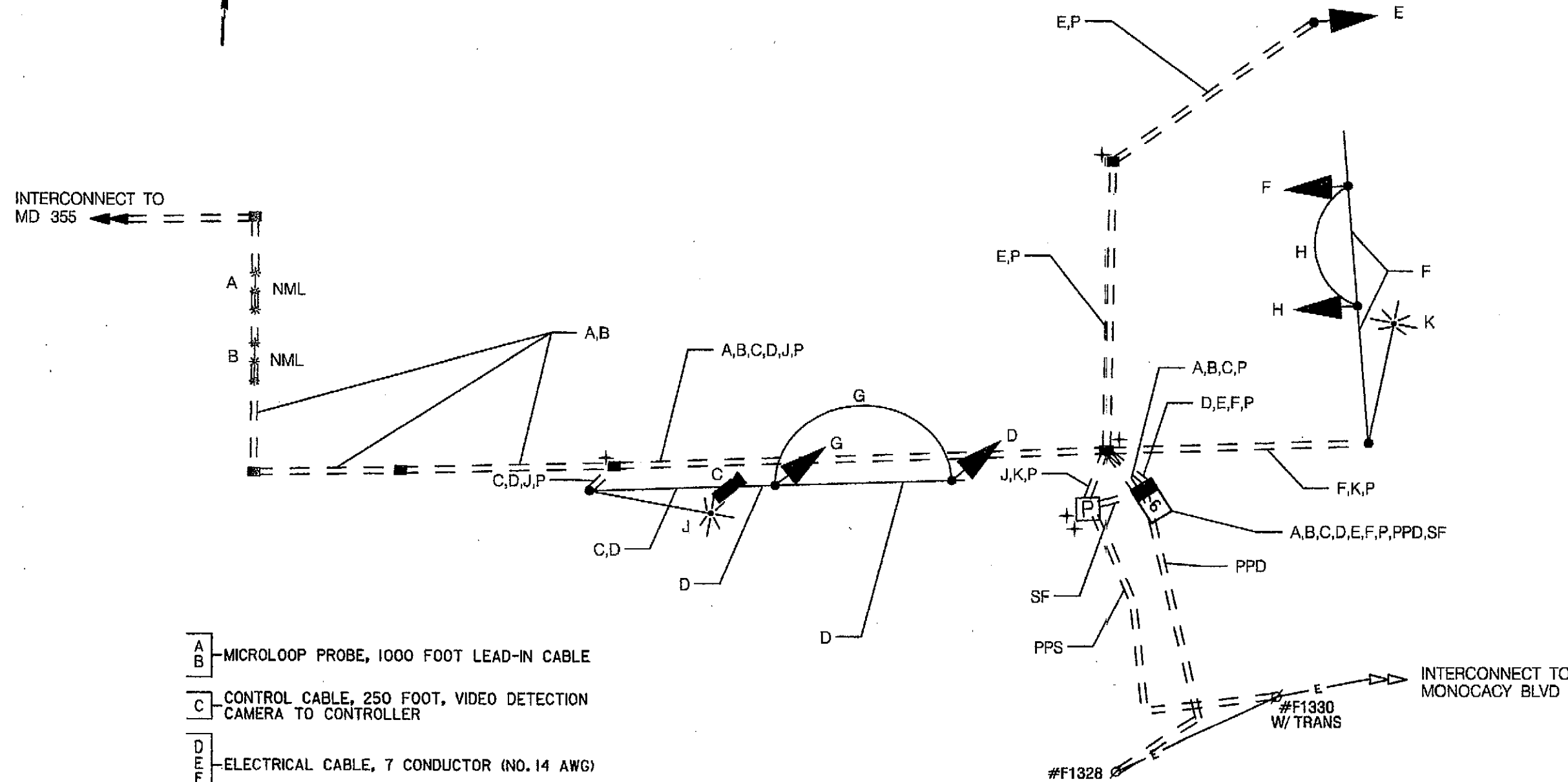
EQUIPMENT LIST 'D'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CAT CODE QUANTITY DESCRIPTION

NONE - ALL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR

WIRING DIAGRAM



- A - MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
- B - CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- C - ELECTRICAL CABLE, 7 CONDUCTOR (NO. 14 AWG)
- D - ELECTRICAL CABLE, 5 CONDUCTOR (NO. 14 AWG)
- E - ELECTRICAL CABLE, 2 CONDUCTOR (NO. 12 AWG), TC
- F - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- G - PROPOSED GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
- H - PROPOSED NON-INVASIVE MICROLOOP PROBE SET
- I - PROPOSED PHONE DROP
- J - ELECTRICAL CABLE - 1 CONDUCTOR, NO. 4 AWG, TYPE USE, 600V
- K - PROPOSED METERED SERVICE PEDESTAL
- L - PROPOSED UNDERGROUND POWER SERVICE TO BE MADE BY ALLEGHENY POWER

NOTE:

THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF ONE (1) YEAR. SHOULD CONSTRUCTION NOT BEGIN WITHIN THIS TIME FRAME, THESE PLANS SHALL BE NULL AND VOID WITH A RE-REVIEW REQUIRED FROM THE TRAFFIC ENGINEERING DESIGN DIVISION.

EAPD PERMIT NO. _____

PHASE CHART

	1	2	3	4	5
PHASE 1	R	R	G	G	G
PHASE 1 CHANGE	R	R	Y	Y	Y
PHASE 2	G	G	FL/RA	FL/R	FL/R
PHASE 2 CHANGE	Y	Y	FL/RA	FL/R	FL/R
FLASHING OPERATION	FL/Y	FL/Y	FL/RA	FL/R	FL/R

LENHART TRAFFIC CONSULTING
TRAFFIC ENGINEERING & TRANSPORTATION PLANNING

331 Redwood Grove Court Millersville, Maryland 21108
Tel: (410) 987-3888 Fax: (443) 782-2288

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 26 (LIBERTY ROAD) AT
MD 850 (NORTH MARKET STREET)

GENERAL INFORMATION

SCALE NONE DATE DECEMBER 2009 CONTRACT NO. BW956M82

DESIGNED BY MML COUNTY FREDERICK
DRAWN BY MML LOGMILE 1002600.77
CHECKED BY MML T.I.M.S. NO. K017
F.A.P. NO. NA TOD NO.

DRAWING NO. TS-4734-GI OF SHEET NO. OF

PLOTTED: WEDNESDAY, DECEMBER 09, 2009 AT 12:14 AM